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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,595	09/29/2003	Rene Gallezot	FR920020080US1	2406
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IBM CORPORATION PO BOX 12195 DEPT YXSA, BLDG 002 RESEARCH TRIANGLE PARK, NC 27709			EXAMINER MUI, GARY	
			ART UNIT	PAPER NUMBER
			2616	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/673,595	<b>Applicant(s)</b> GALLEZOT ET AL.	
	<b>Examiner</b> Gary Mui	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-21 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some    \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

2. Claim 21 is objected to under 37 CFR 1.75 because of the following informalities:

For claim 21, line 3, the occurrence of "processsor" is misspelled, it is suggested to the applicant to replace "processsor" to --processor--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 are rejected under 35 U.S.C. 102(b) as being anticipated by Kline (US 5,793,747).

For claim 1, Kline teaches in the shared resource, generating an event when the occupancy of the at least one shared resource changes; and, transmitting the event to devices sharing the at least one shared resource; each time the timer elapses, getting a partial status of the at least

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one shared resource; and, transmitting the partial status to devices sharing the at least one shared resource (see column 4 lines 36 – 64, a event is scheduled when a cell is added to a queue; a task is generated to schedule the desired execution time).

For claim 2, Kline teaches updating a local status based on the partial status and on the events; and, forwarding traffic according to the local status (see column 5 lines 1 – 6 and lines 33 – 50).

For claim 4, Kline teaches an event is generated when the occupancy or the occupancy variation of the at least one shared resource reaches at least one predetermined threshold (see column 5 lines 1 – 14).

For claim 5, Kline teaches the event or the partial status is transmitted through a dedicated channel (see column 4 lines 28 – 64 and figure 1 data line and control line).

For claim 6, Kline teaches transmitting the event to devices sharing the at least one shared resource comprises inserting the event or the partial status in at least one packet header.

For claim 7, Kline teaches transmitting the event or the partial status to devices sharing the at least one shared resource comprises generating at least one flow-control packet comprising the event or the partial status (see column 5 lines 33 – 50).

For claim 8, Kline teaches prioritizing and queuing events, when several events occur simultaneously, before transmitting sequentially the events (see column 5 lines 33 – 50, task priority).

For claim 10, Kline teaches resource metering unit comprises at least one counter, an event being generated each time the counter reaches at least one predetermined threshold (see column 5 lines 33 – 50, cell counter).

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For claim 11, Kline teaches the shared resource consists of shared memories or shared link bandwidths (see column 4 lines 13 – 27).

For claim 12, Kline teaches the partial status is obtained through a scrolling of the resource metering units (see column 4 lines 36 – 64).

For claim 13, Kline teaches the partial status is a complete status (see column 4 lines 36 – 64).

For claim 14, Kline teaches a resource; a plurality of devices operatively coupled to the resource, the plurality of devices sharing the resource; a first metering unit to evaluate the level of utilization of the resource; a timer to generate timing signal upon expiration of predefined time intervals; and an event reporting unit responsive to timing signal to generate an event signal to be forwarded to the plurality of devices if a threshold in the metering unit is exceeded (see column 4 lines 36 – 64, a event is scheduled when a cell is added to a queue; a task is generated to schedule the desired execution time).

For claim 15, Kline teaches a second metering unit to measure the status of the resource and forwarding a signal representation of the status to the devices (see column 4 lines 36 – 64).

For claim 16, Kline teaches providing in a network node at least one resource to be shared by a plurality of devices; providing, in the network node, event measuring units to measure events that change the occupancy of the resource; providing in the resource a resource metering unit that measures capacity of the resource; providing in the network node a timer; monitoring the event measuring unit and generating an event signal when a threshold in the event measuring unit is crossed; monitoring the resource metering unit and generating a partial status signal each time the timer elapses; and transmitting the partial status signal (see

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column 4 lines 36 – 64, a event is scheduled when a cell is added to a queue; a task is generated to schedule the desired execution time).

For claim 17, Kline teaches transmitting the event signal (see column 4 lines 36 – 64).

For claim 18, Kline teaches the partial status signal is being transmitted to device sharing the at least one resource (see column 4 lines 36 – 64).

For claim 19, Kline teaches the event signal is being transmitted to device sharing the at least one resource (see column 4 lines 36 – 64).

For claim 20, Kline teaches the resource includes a memory (see column 4 lines 36 – 64).

For claim 21, Kline the plurality of devices sharing the resource includes a plurality of network processor units (NPUs) generating and sending packets to be stored in the memory (see column 4 lines 13 – 27).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kline in view of Ljungberg et al. (US 5,493,566).

For claim 9, Kline teaches all of the claimed subject matter with the exception of the events and said partial status are broadcast to all devices or multicast to groups of devices, said method further comprising discarding those of said events and said partial status that are irrelevant for a particular device (see column 4 line 58 – column 5 line 23).

***Allowable Subject Matter***

9. Claim 3 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Byrn et al. (US 5,533,020), Hershey et al. (US 5,365,514), Schmidt (US 5,793,977), Dally et al. (US 6,285,679 B1), Brouwer (US 6,996,081 B1), Garyfalos et al. (US 2005/0013257 A1), Petrovykh (US 2005/0041580 A1) are cited to show Event-drive flow control for a very high-speed switching node.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary Mui whose telephone number is (571) 270-1420. The examiner can normally be reached on Mon. - Thurs. 9 - 3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GM

05.24.2007

  
RICKY Q. NGO  
SUPERVISORY PATENT EXAMINER